



Decision Memo
Amante at Verde Santa Fe Drainage Mitigation
USDA Forest Service
Coconino National Forest, Red Rock Ranger District
Yavapai County

June 11, 2020

The Red Rock Ranger District of the Coconino National Forest has reviewed a proposal by Amante at Verde Santa Fe Homeowners Association in Cornville, Ariz., to improve drainage by installing a gabion system at the end of an existing pipe between two houses that touch Forest Service land in Section 1 of T158N and R4E. Impacts of concentrated drainage flows have eroded the banks on both Forest Service and Amante subdivision property. Use of Forest Service land is needed to allow for a required area to dissipate energy and minimize soil erosion (See map—Figure 1).

Purpose and Need

The Amante at Verde Santa Fe housing community has defined drainage paths that exit onto Forest Service property. The houses on either side of the drainage path are defined by parcels 407-37-624 and 407-37-750 (see figure(s) 2 and 3). This drainage exits on property to the west of Forest Service property; however, due to the steep slope between the Amante subdivision and Forest Service property, the drainage has significant velocity. A culvert outlet from the Amante subdivision is causing erosion on Forest Service land, and this erosion is compromising bank stability on the Amante property. The significant erosion is now threatening the structural stability of the houses.

Proposed Action

Multiple drainage design options by the Amante at Verde Santa Fe subdivision were considered prior to its proposed project submission to mitigate ongoing erosion. The only reasonable/viable solution requires Forest Service land to provide a sufficient area to reduce drainage velocity to levels where erosion will be minimal. Structures built solely on Amante property would be structurally unstable.

The maintenance upgrade of the Amante at Verde Santa Fe drainage system is proposed to provide bank reinforcement and scour protection using gabions and reno mattresses on Forest Service land (see figure(s) 4, and 5). Construction work would include the extension of an existing 42-inch corrugated metal pipe along 407-37-915A parcel and the installation of a gabion system at end of the pipe to dissipate energy and minimize any future erosion. The constructed system would be in use continuously and indefinitely.

Major materials used would consist of the following: corrugated metal pipe, gabion baskets, reno mattress, rip rap rock, reinforce concrete, and soil for compaction. Specifically:

- A drainage conveyance/control system is proposed to be placed on Forest Service land.
- Bank protection would be approximately 471 square feet in size with a maximum width of 30.75 feet and a maximum length of 21.4 feet into Forest Service land.
- Approximately 65 cubic yards of rock, 28 gabions (6 feet wide by 3 feet tall by 3 feet deep), and 190 square feet of 12-inch reno mattress and geofabric would be available for the project.
- Project area on Forest Service land, including for construction, would be a 40- by 40-foot area.
- Duration of construction would be approximately three months.
- No post-construction maintenance is required after the initial construction. The stilling basin (at the end of the pipe) will act as a sediment capture unit in low flows and self-cleanse in high

intensity rain events. It is recommended that the HOA inspects the structure after a major rain event or on a periodic basis.

Access of construction and equipment to the site: The access to the site will be from South Rainbow Ridge road. Due to the limited space, no large equipment is anticipated. All work will consist of using equipment similar to an excavator. Gabion baskets and reno mattresses will be constructed and filled with rocks by hand.

Decision

In response to the purpose and need for action, I have decided to approve the installation of a gabion system at the identified location within the Amante at Santa Fe housing addition to construct, operate, and maintain, as needed, drainage infrastructure. Authorization of the special-use permit would be for the maximum period of 20 years with the potential for re-issuance after that term expires.

The decision includes the following actions and mitigation measures to avoid and/or minimize impacts to natural resources.

Invasive Weed Protections

- The proposed ground-disturbing activities were analyzed and documented in a biological specialist review and report dated May 7, 2019, by the district wildlife biologist for effects to federally threatened, endangered, proposed and candidate wildlife, fish, and plant species and habitat. Design and construction of infrastructure need to conform to the following conservation measures to avoid or eliminate the spread or introduction of invasive plant species and invasive aquatic species.
 - Follow best Management Practices as outlined in the “Final Environmental Impact Statement for Integrated Treatment of Noxious or Invasive Weeds” in 2005 to incorporate weed prevention and weed control in the project.
 - Avoid driving or parking vehicles and equipment on vegetation adjacent to the road in order to avoid spreading invasive weeds.
 - Prior to the start and after completion of construction and/or maintenance activities, mud, dirt, and plant parts will be removed from all vehicles and equipment used during project operations to prevent the spread of invasive plant species. Keep equipment free of invasive species by washing the equipment with a high-pressure washer prior to entering the work zone.
 - Soil disturbance is to be restricted to the permitted area.
 - Areas where ground disturbance would occur will be monitored by a qualified weed specialist to ensure that invasive plant species do not become established. If invasive species are documented during surveys, manual and/or chemical control would be required.
 - Monitor and treat noxious weeds using approved Forest Service eradication methods.

Public Involvement

Scoping of the drainage erosion project on Rainbow Ridge Drive occurred on multiple instances by the Amante at Verde Santa Fe Homeowners Association, in 2016, 2017, and 2019, with indications that Southwestern Environmental Consultants, Inc. (SEC) would engineer the project and act on behalf of the HOA. The two property owners on both sides of the project have supplied letters of support for the project in summer 2019. The project was included on the Coconino National Forest Schedule of Proposed Actions.

Exclusion from Further National Environmental Policy Act Analysis

The Forest Service NEPA regulations (36 CFR 220) provide that a proposed action may be categorically excluded from further analysis and documentation through an environmental impact statement (EIS) or environmental assessment (EA) only if there are no extraordinary circumstances. The applicable categories in 36 CFR 220.6 are:

- 36 CFR 220.6(e)(3): Approval, modification, or continuation of minor special uses of NFS lands that require less than five contiguous acres of land.

Evaluation of the following resource conditions indicates that no extraordinary circumstances are present in the project. As a result, further analysis in an EA or EIS is not necessary.

Relationship to Extraordinary Circumstances

Federally listed threatened or endangered species, or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service Sensitive Species.

The Forest Service biologist has reviewed the project area and referenced biological surveys for the project area, in a May 7, 2019 biological review. There are no federally listed threatened, endangered, or proposed wildlife or plant species in the project area. There is also no designated critical habitat in the project area. Therefore, there will be no effects to any threatened or endangered wildlife or plant species. There are no Forest Service-designated sensitive species in the project area.

Floodplains, Wetlands, or Municipal Watersheds:

The Forest Service hydrologist has reviewed the project area, in a Sept. 16, 2019, review. There are no wetlands or municipal watersheds at the permitted site. Although there are floodplains or flood-prone areas in the project area, there are no adverse effects anticipated. Actions under this permit will not alter any aspects of the watershed or waters of the United States, pursuant to Section 404 of the Clean Water Act of 1972.

Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas: There are no Congressionally designated areas in the decision area.

Inventoried roadless areas or potential wilderness areas: The project area is not within an inventoried roadless area and is not part of a potential wilderness area.

Research Natural Areas: The project area is not within or adjacent to a research natural area.

American Indians and Alaska Native Religious or Cultural Sites: The proposed project is not expected to have any effects to Native American cultural sites.

Archeological sites, or historic properties or areas: A cultural resource survey and report was prepared for the project, Sept. 7, 2019. No significant cultural resources or isolated occurrences were recorded during the survey.

Findings Required by Other Laws and Regulations

Coconino Forest Plan: This project is consistent with the goals, objectives, and management standards of the March 2018 Coconino National Forest Land and Resource Management Plan.

National Historic Preservation Act: Cultural resource surveys have been completed and reviewed by the Forest Service archeologist. Results indicated there were no adverse effects to the historical cultural resources of the area.

American Indian Religious Freedom Act: No American Indian cultural sites were identified within the project area. No comments regarding cultural sites were received regarding the project proposal.

Endangered Species Act: The Forest Service biologist has developed a biological assessment for the proposed project area, which considered potential impacts on threatened, endangered or proposed species and their habitats. Based on this analysis, there will be no effects to federally listed species.

Migratory Bird Treaty Act: On January 10, 2001, President Clinton signed an Executive Order outlining responsibilities of federal agencies to protect migratory birds. Upon review of the information regarding neotropical migratory birds and the scope of the project, the Forest Service wildlife biologist determined that no significant loss of migratory bird habitat is expected from implementation of this project.

Clean Water Act: Public Law 92-500, as amended in 1977 (Public Law 95-217) and 1987 (Public Law 100-4) (also known as the Federal Clean Water Act) provides the structure for regulating pollutant discharges to waters of the United States. In Arizona, the designated agency for enforcement of the Clean Water Act is the Arizona Department of Environmental Quality. There will be no impacts to water.

Clean Air Act: This decision is in compliance with the Clean Air Act, which defines the National Ambient Air Quality Standards (NAAQS) for various sources of pollutants that must be met to protect human health and welfare, including visibility.

Executive Order 12898 - Environmental Justice: This order requires federal agencies to evaluate whether their decisions could result in disproportionate effects to minority and/or low-income populations. No environmental justice concerns are anticipated to arise.

Administrative Review

This decision is not subject to administrative review opportunities, including objections pursuant to 36 CFR 218.

Implementation Date

This decision may be implemented immediately upon issuance of authorizations and approved plans.

Contact

For additional information concerning this decision, please visit the project webpage at <https://www.fs.usda.gov/project/?project=58058> or contact Elizabeth Munding, NEPA planner, on the Coconino's Red Rock Ranger District via email at Elizabeth.a.munding@usda.gov or by calling (928) 203-2914.

LAURA JO WEST

LAURA JO WEST
Forest Supervisor
Coconino National Forest

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Date

Amante at Santa Fe Drainage Mitigation – Decision Memo

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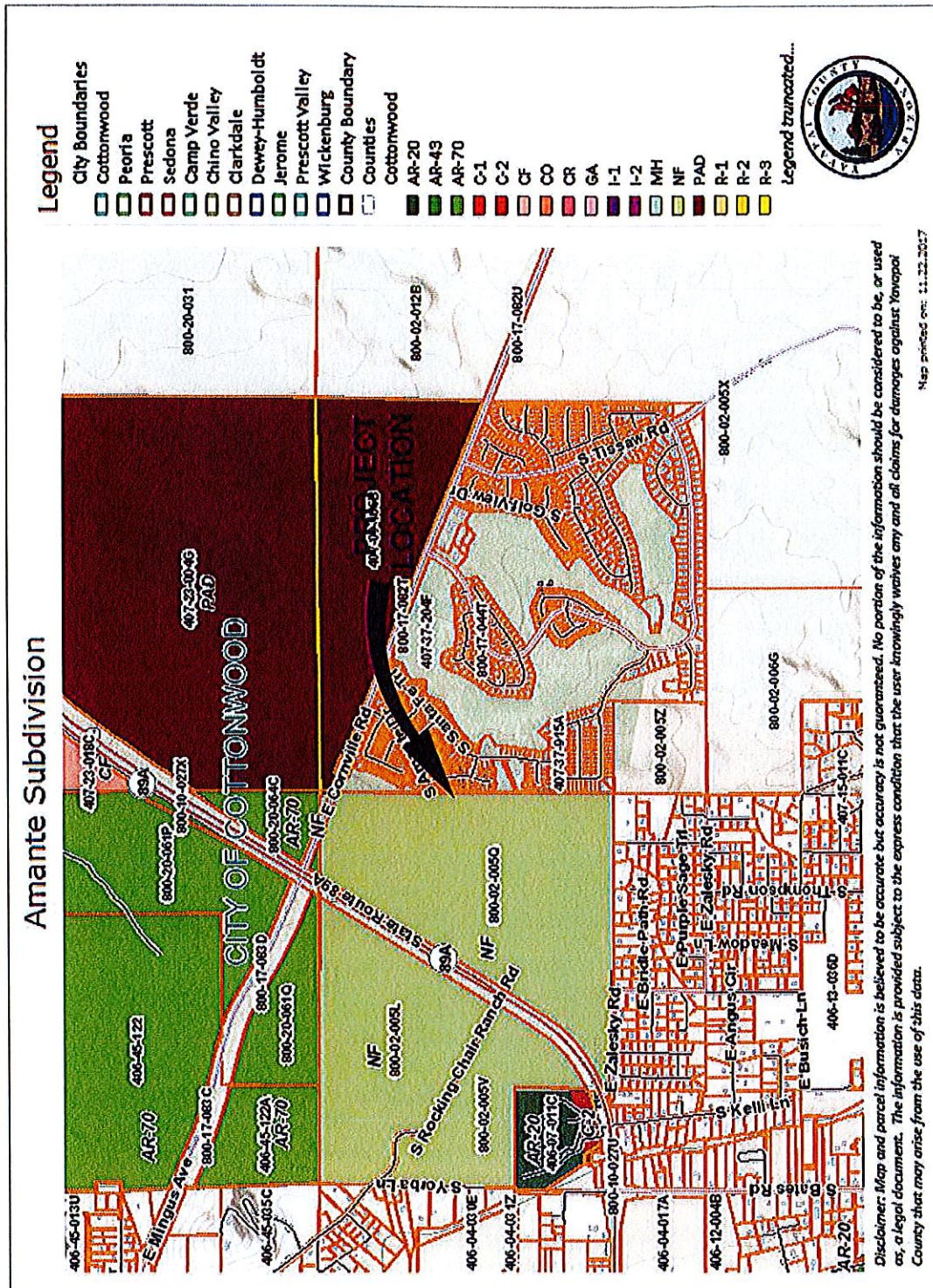


Figure 1 – Location Map



Figure(s) 2 – Location for drainage mitigation at Amante at Verde Santa Fe within Section 1 of T158N, R4E



Figure 3 – Route to transport equipment from South Rainbow Ridge

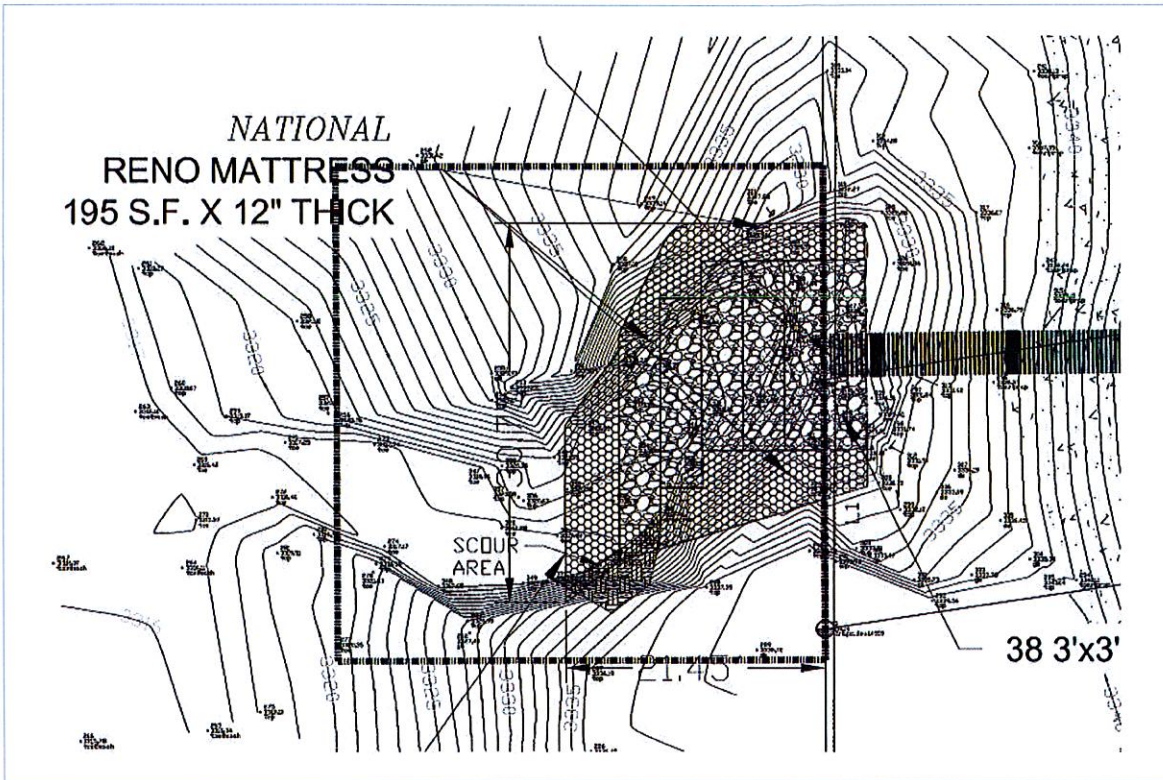


Figure 4 – Option 1 drainage mitigation construction design at Amante at Verde Santa Fe. Work taking place on USFS land is limited to the reno mattress and occurs within an existing drainage.

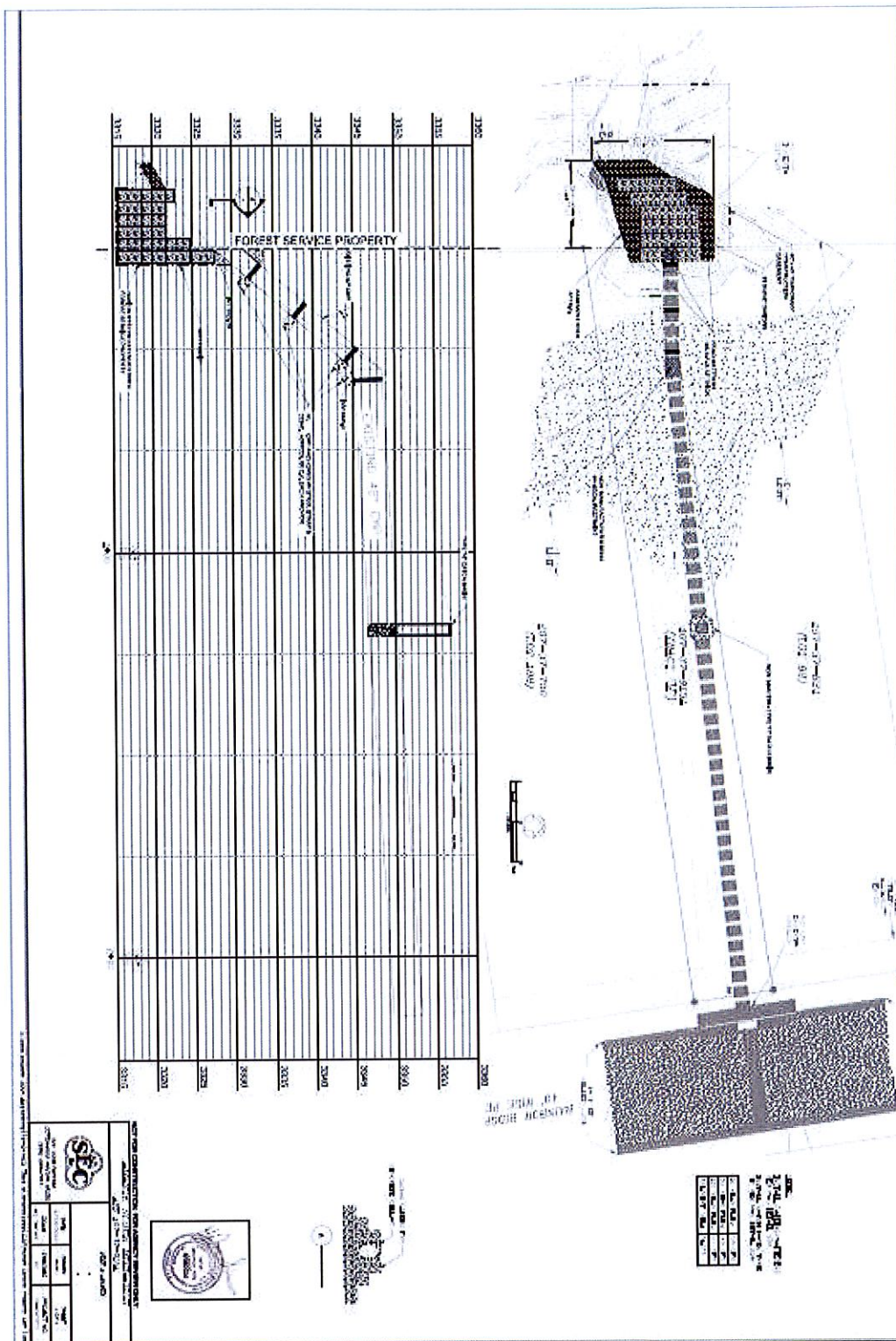


Figure 5—Full view of drainage mitigation construction design at Amante at Verde Santa Fe. Work taking place on USFS land is limited to the reno mattress and occurs within an existing drainage. No easement is needed.